The results of this study offer a proof of concept for a strategy to reduce CLABSI rates in pediatric patients who reside in remote and low-resource environments and are undergoing HPN” Fuchs et al 92019).

Abstract:

BACKGROUND: Central line-associated bloodstream infections (CLABSIIs) are major sources of morbidity, death, and healthcare costs in patients who receive home parenteral nutrition (HPN). The majority of HPN-dependent children in southern Israel reside in poor communities with substandard living conditions, which creates significant challenges for the safe provision of HPN. We developed a pilot intervention that aimed to reduce the rates of CLABSI and central venous catheter (CVC) replacements in this vulnerable population in our region.

METHODS: Between 2012 and 2014, all HPN-dependent children with intestinal failure who were treated in our center, received HPN through a Hickman catheter, and experienced at least 1 previous CLABSI episode participated in the intervention. The intervention included home visits to assess the caregivers’ CVC-handling technique, instillation of prophylactic ethanol lock solution, and the convening of regular multidisciplinary staff debriefings. We calculated CLABSI and CVC-replacement rates before and after the intervention.

RESULTS: Eight patients who served as their own historical controls were included in the intervention (total of 2544 catheter-days during the intervention period). The mean CLABSI
rate decreased from 9.62 to 0.79 CLABSI episodes per 1000 catheter-days; the CVC-replacement rate decreased from 2.5 to 1.2 replacements per 1000 catheter-days in the preintervention and intervention periods respectively. The median hospital length of stay and individual monthly cost of medical care decreased compared to those found in the preintervention period.

CONCLUSIONS: The results of this study offer a proof of concept for a strategy to reduce CLABSI rates in pediatric patients who reside in remote and low-resource environments and are undergoing HPN.

You may also be interested in...

CLABSI rates associated with hemodialysis patients
CLABSI conversations: Peer-to-peer assessments reduce CLABSI rates
Quality improvement protocol to reduce neonatal CLABSI rates

Reference: